DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT
PO BOX 2004 CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF

July 25, 2016

Operations Division

SUBJECT: CEMVR-OD-P-2014-1313-a

Mr. Joey Mahmoud
Dakota Access Pipeline, LLC
1300 Main,
Houston, Texas 77002

Dear Mr. Mahmoud:

Our office reviewed the information provided to us within your Pre-Construction Notifications (PCNs), addendums, cultural resources surveys, biological assessment, and supplemental information received in our office between December 31, 2014, and March 28, 2016, concerning your proposal to discharge dredged or fill material into Waters of the United States (WOUS), and conduct work under navigable waters, for work associated with the construction of utility pipeline crossings for the Dakota Access Pipeline. The construction of the 30-inch crude oil pipeline known as the Dakota Access Pipeline Project (DAPL) will begin in the Bakken and Three Forks production Region in North Dakota and terminate at a crude oil market hub near Patoka, Illinois. The proposed pipeline will cross approximately 1,168 miles through three separate Corps Districts, including 393 miles within the Rock Island District (MVR), transecting through portions of Lyon, Sioux, O'Brien, Cherokee, Buena Vista, Sac, Calhoun, Webster, Boone, Story, Polk, Jasper, Mahaska, Keokuk, Wapello, Jefferson, Van Buren, and Lee Counties in Iowa; and Hancock, Adams and Schuyler Counties in Illinois.

This letter concerns the verification of construction activities within separate and distant waters of the U.S. associated with **PCNs 2 thru 63 in Iowa** (see attached spreadsheet, Attachment A). It is our understanding that you will perform horizontal directional drills at Iowa PCNs 1 and 34, and those PCNs are withdrawn. We have reviewed your project under Section 404 of the Clean Water Act, and Section 10 of the Rivers and Harbors Act of 1899. Your project is verified under Nationwide Permit No. 12, as published in the enclosed pages of the February 21, 2012 Federal Register notice (77 FR 10184), provided you meet the permit conditions for the nationwide permits which are also included in the Federal Register and the special conditions listed below. The decision regarding this action is based on information found in the administrative record, which documents the District's decision-making process, the basis for the decision, and the final decision

The Iowa Department of Natural Resources has issued water quality certification for the nationwide permits, however water quality certification is not needed for PCN 18 in Iowa, as it is a horizontal directional drill under a navigable water (Des Moines River), and does not result in a discharge into a water of the United States.

By letter dated May 2, 2016, the U.S. Department of the Interior, Fish and Wildlife Service (FWS), concurred with the Corps' determination of "May Affect, not Likely to Adversely Affect" for Topeka shiner (*Notropis topeka*) based on utilization of Horizontal Directional Drill (HDD) crossing methodology for two crossings of potentially occupied streams (North Raccoon River and Cedar Creek); the implementation of "Best Management Practices" (Attachment B) on the remaining crossings of potentially occupied streams (PCN7, West Fork Camp Creek; PCN8,Camp Creek; PCN9, Lake Creek; PCN10, Purgatory Creek; PCN11, West Cedar Creek; PCN12, East Cedar Creek; PCN 13, Hardin Creek; PCN13, West Buttrick Creek; PCN14, East Buttrick Creek; and PCN15, an unnamed tributary to East Buttrick Creek; and the implementation of enhanced Conservation Measures at the East Cedar Creek crossing (PCN12). The enhanced Conservation Measures are described in the enclosed Attachment C, Supplemental Information to the Biological Assessment.

In addition, in the May 2 letter, the FWS concurred with a "May Affect, not Likely to Adversely Affect" determination for the Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis sepentrionalis*) based on the understanding that most of the Action Areas have already been cleared, and that in those Action Areas that are yet to be cleared the remaining habitat containing suitable roosts for the Indiana bat will be removed with the following conservation measures:

1. Cutting of trees within Action Areas occurs during the wintertime (October 1 to March 31) and summer clearing occurs only in Action Areas where there are no positive Indiana bat mist net captures.

2. Summer tree clearing must include exit surveys completed by a qualified biologist for all suitable roost trees following the guidance for Emergence Surveys for Potential Bat Roosts in Appendix E of the 2016 Revised Range-Wide Indiana Bat Summer Survey Guidelines (USFWS Guidance; USFWS, 201c; USFWS 2015a). Suitable roost trees are trees of 5" dbh or greater as defined in the 2016 and 2015 guidelines. If any bats are observed during the exit surveys, clearing of that Action Area must occur between October 1 and March 31.

Your adherence to implementation of the above BMPs and enhanced conservation measures for Topeka shiners, and the above two conservation measures concerning Indiana bats is required.

The Corps has determined construction of the DAPL project within Corps Action Areas will have no adverse effect on significant cultural resources provided that for Iowa PCNs 2-6, 17, 18, 19, 23-33, 35 & 36 the permittee adheres to the enclosed "Rock Island District Tribal Monitoring Plan for Dakota Access Pipeline" (Attachment C), and Nationwide Permit General Condition No. 21 – Discovery of Previously Unknown Remains and Artifacts and the management recommendations outlined in the approved avoidance plans: Horizontal Directional Drill Plan for Archaeological Site Avoidance, Unanticipated Discoveries Plan Cultural Resources, Human Remains, Paleontological Resources & Contaminated Media, Dakota Access Pipeline Project (DAPL) for Iowa.

Multiple special conditions have been incorporated into this DA authorization to protect the quality, integrity, and abundance of aquatic resources, cultural and historic properties, and federally threatened and endangered species. In accordance with NWP General Condition 27, you must comply with the following project specific special conditions:

1. The permittee shall comply and implement the plans described in the Pre-Construction Notifications (PCNs) dated December 30, 2014, (IL) and December 29, 2014 (IA), and subsequent addendums dated March 25, 2015 (IL & IA). The plans were listed in the appendices and included the HDD crossing plans, Open Trench crossing plans, HDD Contingency Plan, Draft Spill Prevention, Containment and Countermeasures Plan, and others listed.

2. The party responsible for providing compensatory mitigation is Dakota Access, LLC, for Department of the Army (DA) Permit No. CEMVR-OD-P--2014-1313a. The technical specifications listed in the document entitled DAPL Skunk River Wetland Site, Final Wetland Mitigation Plan January 2016; are approved and made part of this verification and may be used as a reference for various procedures for the mitigation plan. However, the information contained in the aforementioned document is superseded by any permit conditions or written specifications provided by the Corps of Engineers. Permanent conversion of forested wetland for Iowa shall be mitigated at a minimum 2:1 impact-to-mitigation ratio. Temporary conversion of forested wetland for Iowa will be mitigated at a 1.5:1 mitigation to impact ratio.

3. The required compensatory mitigation for the temporary conversion of 1.70 acres of forested wetland, at a 1.5:1 mitigation ratio, is 2.55 acres of forested wetland. The required compensatory mitigation for the permanent conversion of 1.77 acres of forested wetland to emergent wetland, at a 2:1 mitigation ratio is 3.54 acres of forested wetland. Total required compensatory mitigation in Iowa is 6.09 acres of forested wetland. The applicant has proposed to consolidate the required compensatory mitigation for impacts within the State of Iowa at a consolidated mitigation site. The applicant has offered 8.76 acres of forested wetland compensatory mitigation, to be constructed along the main stem of the North Skunk River in Section 1, Township 77 North, Range 16 West Mahaska County, Iowa in a document titled "DAPL Skunk River Wetland Final Wetland Mitigation Plan.July 2016". Total compensatory mitigation required by MVR is 6.09 acres, therefore the 8.76-acre proposal is acceptable to meet compensatory mitigation requirements. Monitoring shall be required for a 10 year period beginning the year after planting, and an as-built plan shall be submitted to the Corps of Engineers upon establishment of species of the tree plantation. Success standards after 10 years must include achieving an 80% survivability of the planted species for each year after initial planting; minimum of 109 woody stems/acre consisting of 5 or more native, hydrophytic woody species per acre; no more than 5% of the wetlands shall consist of a contiguous unvegetated open water area measured no later than September 15th of each year; at least 90% of the vegetative cover consists of desirable plant species with a minimum of 10 hydrophytic plant species per acre; and no single occurrence of undesirable species shall exceed 0.10 contiguous acres in area. If unsuccessful after 10 years, the permittee will be required to initiate adaptive management actions that may include additional monitoring, additional plantings, consideration of other sites, the use of a mitigation bank, or other options.

4. Mitigation efforts at the Iowa compensatory mitigation site shall begin concurrent with the initiation of project construction. The mitigation work shall be completed within one year of the completion of project construction.

5. The Permittee shall notify the Corps of Engineers at least 60 days prior to any future development or land-use conversion of the wetland mitigation area for any purpose which may interfere with or be detrimental to wetland functions. Such development or land use conversion is prohibited without prior written approval from the Corps of Engineers.

6. Where forested wetlands are cleared within Action Areas along the alignment outside of the permanent conversion zone, DAPL will not replant trees but will restore pre-project ground contours, plant native hydrophytic emergent vegetation, and allow natural re-colonization by woody species.

7. With the exception of farmed wetlands, a minimum of 15 different wetlands species (native grasses, sedges, rushes, forbs, and/or ferns) shall be seeded into the disturbed emergent wetlands and maintained open areas within forested and scrub shrub wetlands at a rate of 10 lbs. of pure live seed per acre to increase the diversity of native herbaceous wetland plants. Native plant plugs may also be used in conjunction with, or in substitution of seed. Oats and/or annual rye shall be incorporated into the seed mix to serve as a nurse crop. Restored, temporarily impacted wetlands shall be monitored for a minimum period of three years, with annual monitoring reports submitted to the District Engineer (DE). At the end of the three years monitoring period, 80% or greater of the aerial coverage shall be dominated by native hydrophytic plants in emergent and forested wetlands previously dominated by native hydrophytic species. DAPL will not be held to this performance standard (i.e., 80% coverage) within wetlands where the pre-project plant communities were dominated by aggressive Eurasian species [e.g., reed canary grass (*Phalaris arundinacea*), purple loosestrife (*Lythrum salicaria*), or common reed (*Phragmites australis*), etc.

8. Non-native plants and aggressive native cultivars such as switch grass (*Panicum virgatum*) shall not be used in seed mixes, and invasive species such as reed canary grass (*Phalaris arundinacea*), purple loosestrife (*Lythrum salicaria*), smooth brome grass (*Bromus inermis*), crown vetch (*Corinilla varia*), birdfoot trefoil (*Lotus corniculatus*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), wild parsnip (*Pastinaca sativa*), common reed (*Phragmites australis*), Eurasian honeysuckles (*Lonicera spp.*), buckthorns (*Rhamnus cathartica and R. frangula*) and white and yellow sweet clovers (*Melilotus alba and M. officinalis*), and Japanese Hops (Humulus japonicus) will be controlled.

9. Drawings/photographs/location maps of the restored wetlands and stream bodies will be submitted to the District Engineer (DE) within 90 days of completing restoration activities along the entire pipeline route. The drawings must include a list of species planted, the location of all plantings, cross-sectional drawings of the planting schemes and the boundaries of the temporary impacts and restoration activities.

10. If excavation and construction are completed outside an optimal seeding period, temporary erosion control measure shall be implemented immediately upon completion of excavation and construction and shall be maintained until such time as wetland plantings can be completed during an optimal period. The permanent wetland plantings shall then be completed during the next optimal seeding period.

11. The Permittee shall provide an annual report to the District Engineer documenting the extent of the mitigation and restoration work completed along the Iowa portion of the project. The results of the survey shall be documented annually in an annual progress report as specified in RGL 08-03, http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rgl08_03.pdf. The Permittee shall notify this office in writing upon completion of all wetland mitigation and restoration activities. The Permittee shall be responsible to perform any corrective actions deemed necessary by this district to insure the success of the wetland mitigation and restoration activities.

12. These annual reports are due no later than December 31 of each year for the monitoring period. All annual monitoring reports shall be formatted for an 8.5 x 11 inch piece of paper. Reports are due after the first full growing season after the mitigation is constructed and annually thereafter for a minimum period of 10 years (3 years for restoration activities).

13. The Permittee shall notify the DE within 60 days if any parts of the compensatory mitigation project are not achieving their performance standards as anticipated. The Permittee shall provide 60-day advance notification to the district engineer if any action is taken to modify the approved mitigation plan. Remedial work may include re-grading and/or replanting the various restoration areas or at the DAPL Skunk River Wetland Site. The Permittee shall take immediate proactive steps necessary to correct any deficiencies outlined in the monitoring reports and shall coordinate with this office during implementation to insure compliance with the terms and conditions in this permit.

14. Your responsibility to complete the required compensatory mitigation and restoration work will not be considered fulfilled by our office until you have demonstrated success as outlined above and have received written verification from the U.S. Army Corps of Engineers.

15. To facilitate post construction compliance inspections, the Permittee shall within 60 days of project completion, provide this office with locations (latitude/longitude) of all crossings of waters of the United States (including wetlands), along with property owner contact information. This reporting requirement includes those crossings not previously submitted as Preconstruction Notices.

16. Nationwide Permit General Condition No. 12 of the attached Nationwide Permit Summary states "Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow".

17. The unaffected waters of the U.S. delineated within the adjacent project area must be protected during land leveling and construction activities. The jurisdictional wetlands and stream channels may not be graded or used as staging areas, temporary crossings, temporary fill sites, etc., without prior authorization from the Corps of Engineers. Prior to the commencement of any physical work within the designated construction right-of-way, wetlands and waterbodies that are to remain undisturbed shall be clearly marked in the field and identified to the heavy equipment operators.

18. Removal of vegetation, including trees located in or adjacent to waters of the United States, shall be limited to that which is absolutely necessary for construction of this project. All woody debris shall be removed to an upland, non-wetland site.

19. All temporary impacts to waters of the United States, including wetlands, rivers, and streams, shall have sidecast material returned to the excavation site or removed within 90 days of the initial ground disturbance. Topsoil segregation piles and temporary construction travel lanes may remain until restoration is complete.

20. The applicant shall notify the D E if extra workspace areas used for equipment and material staging and spoil storage are located in waters of the U.S. not previously identified in the application or design plans.

21. You are encouraged to conduct your construction activities during periods of low flow. If the banks are not armored, you are required to grade the streambanks on a minimum 2:1 slope and replant them with permanent perennial native grasses and forbs and a nurse crop of annual rye or oats.

22. Bank and shoreline protection shall consist of suitable clean materials (geotechnical fabric, native cobble, and quarry run rock) free from debris, trash, and other deleterious materials. Concrete rubble, broken asphalt, car bodies, and broken concrete containing asphalt are specifically excluded from this authorization.

23. Any land use conversion within the wetland and stream restoration/mitigation areas which may interfere with or be detrimental to the functions and values of these aquatic resources, is prohibited.

24. All wetland boundaries and waterbody buffer areas shall be marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

25. In wetlands, the top 12 inches of the trench shall be backfilled with the top 12 inches of topsoil excavated from the trench. All sidecast material shall be used as backfill in the trench or removed as excess material from the wetland to an upland disposal site. Backfilling with the sidecast material shall allow for soil settlement that could occur over an 18 to 24 month period. The maximum temporary crown allowed over the trench is 12 inches. All material beyond this 12-inch temporary crown is considered excess material.

26. You shall utilize timber mats, prefabricated equipment mats, and/or low-ground-pressure equipment in wetlands to minimize disturbance. Other than the temporary mats, this permit does not authorize the placement of fill material in wetlands for the construction of access roads and pads.

27. You are responsible for insuring that whoever performs, supervises, or oversees any portion of the physical work associated with the construction of the project has a copy of, is familiar with, and complies with all the terms and conditions of this permit.

28. A permanent 50-foot wide right-of-way (ROW) shall be maintained at project completion, except in forested wetlands where no more than 30 feet shall be maintained in an herbaceous state. During construction you shall limit riparian tree clearing in streambanks, and other forested areas adjacent to streams and rivers to a 100-foot corridor, including the maintained right-of-way. You shall submit for review by the Corps any proposal to clear a wider area. Clearing in forested wetlands shall be 85 feet or less.

29. To minimize the potential release of drilling mud into wetlands and other waters, your contractor(s) shall follow the procedures of the Horizontal Directional Drill Plan outlined in supplement information received on June 13, 2013.

30. The permittee must receive written approval from the District Engineer before proceeding with any alternative installation methods that are not described in the previously submitted plans with your application. For example, if you are unable to directionally drill under the Des Moines River or other previously designated waterways, you must provide written notification to our office and receive approval for any alternative method. This may require a new permit review and an Individual Permit.

31. You shall restore all temporary impacts to waters of the United States (including wetlands, streams, and rivers) to their pre-impact condition within 90 days of the initial ground disturbance (grading and/or excavation).

32. The permittee understands and agrees that if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure of work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

33. The facility shall not prohibit or interfere with future work, construction of weirs, or dikes, undertaken by the United States Government for navigation purposes.

34. The permitted structures shall be removed, at no cost to the United States Government, when deemed necessary for actions required by the United States Government (bankline repairs, construction of new structures, dredging, etc.).

35. Nationwide Permit General Condition No. 21 of the attached Nationwide Permit Summary states: "If you discover any previously unknown historic, cultural or archaeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places".

36. The permittee will perform any corrective measures deemed necessary by the DE to insure the success of the wetland and stream restoration measures (*Condition self-explanatory*).

This verification is valid until March 18, 2017, unless the nationwide permit is modified, reissued, or revoked. It is your responsibility to remain informed of changes to the nationwide permit program. We will issue a public notice announcing any changes if and when they occur. Furthermore, if you commence or are under contract to commence this activity before the date the nationwide permit is modified or revoked, you will have twelve months from that date to complete your activity under the present terms and conditions of this nationwide permit. If your project plans change, you should contact our office for another determination.

You are required to complete and return the enclosed "Completed Work Certification" form upon completion of your project in accordance with General Condition No. 30 of the nationwide permits.

The Rock Island District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete the attached postcard and return it or go to our Customer Service Survey found on our web site at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. (Be sure to select "Rock Island District" under the area entitled: Which Corps office did you deal with?)

Should you have any questions, please contact our Regulatory Branch by letter, or telephone Mike Hayes at 309/794-5372.

Sincerely,

Ward Lenz
Chief, Regulatory Branch

When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s), of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ _____

Transferee Date

Enclosures: Attachment A, Attachment B, Attachment C, Attachment D, Federal Register Notice 2/21/2012

Copy Furnished: (w/enclosures)

Ms. Christine Schwake (3)
IADNR-Water Resources Section
Wallace State Office Building
Des Moines, Iowa 50319-0034

Copy Furnished: (w/o enclosures)

Ms. Kathy Gourley
State Historical Society of Iowa
600 East Locust
Des Moines, Iowa 50319-0290

Mr. Kraig McPeek
U.S. Fish and Wildlife Service
Rock Island Field Office
1511 47th Avenue
Moline, Illinois 61265

COMPLETED WORK CERTIFICATION

Permit Number: CEMVR-OD-P-2014-1313a

Name of Permittee: Dakota Access Pipeline, LLC

Date of Issuance: July 25, 2016

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Engineer District,
Rock Island
ATTN: Regulatory Branch
Clock Tower Building
Post Office Box 2004
Rock Island, Illinois 61204-2004

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above reference permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date

MH

PCN Crossing Table
Wetlands and Waterbodies Affected by the
Dakota Access Pipeline Project in Iowa

PCN Review Area	Section, Township, Range	County	MP[a]	Latitude	Longitude	Waterbody Name	HDD[b]	Wetland/ Waterbody Feature ID	Feature Type[c]	Temporary Impacts (acres)/Stream Length Crossed (ft)	PFO Conversion (Acres)
HUC 10170203 - Lower Big Sioux											
1	This PCN was withdrawn - an HDD was implemented to avoid this PCN area.										
2	S3T98NR48W	Lyon	486.0	43.3319	-96.5016	Tributary to the Big Sioux River	No	S_BM-1_LY_3	Intermittent	5.00	--
									Stream Length	**5.00**	--
HUC 10170204 - Rock											
3	S10T97NR46W	Sioux	500.2	43.2325	-96.2671	N/A	Yes	W_BM-1_SI_1-1	PFO	0.00	0.37
4	S10T97NR46W	Sioux	500.7	43.2319	-96.2584	N/A	No	W_BM-6_SI_2	PFO	0.22	0.14
SUB TOTALS									**PFO**	**0.22**	**0.51**
HUC 10230003 - Little Sioux											
5	S36T93NR40W	Cherokee	549.5	42.8267	-95.5109	N/A	Yes	W_BM-1_CH_2	PFO	0.00	0.34
6	S31T93NR39W	Cherokee	550	42.8244	-95.5016	N/A	No	W_BM-1_CH_3	PEM	0.11	--
	S31T93NR39W	Cherokee	550	42.8243	-95.5020	Tributary to the Little Sioux River	No	S_BM-1_CH_2	Intermittent	2.00	--
SUB TOTALS									**PEM**	**0.11**	--
									PFO	**0.00**	**0.34**
									Combined Wetlands	**0.11**	**0.34**
									Stream Length	**2.00**	--
HUC 07100006 - North Raccoon											
7	S33T89NR33W	Calhoun	596.3	42.4756	-94.7473	West Fork Camp Creek	No	S_BM-2_CA_1	Perennial	10.00	--
8	S10T88NR33W	Calhoun	600.4	42.4483	-94.6792	Camp Creek	No	S_PI_CA_4	Intermittent	10.00	--
9	S20T88NR32W	Calhoun	604.9	42.4220	-94.5975	Lake Creek	No	S_BM-8_CA_2	Perennial	20.00	--
10	S35T88NR32W	Calhoun	608.9	42.3918	-94.5348	Purgatory Creek	No	S_BM-2_CA_2	Perennial	10.00	--
11	S31T88NR31W	Calhoun	610.4	42.3896	-94.5054	West Cedar Creek	No	S_PI_CA_8	Intermittent	10.00	--
12	S3T87NR31W	Calhoun	613.7	42.3728	-94.4458	East Cedar Creek	No	S_BM-1_CA_2	Perennial	33.00	--
13	S19T87NR30W	Webster	617.8	42.3368	-94.3849	Hardin Creek	No	S_BM-3_WE_2	Perennial	9.00	--
14	S35T87NR30W	Webster	622	42.3075	-94.3135	West Buttrick Creek	No	S_BM-2_WE_1	Perennial	10.00	--
15	S9T86NR29W	Webster	627	42.2731	-94.2298	Tributary to East Buttrick Creek	No	S_BM-4_WE_1	Intermittent	10.00	--
16	S14T86NR29W	Webster	628.7	42.2609	-94.2016	East Buttrick Creek	No	S_PI_WE_2	Intermittent	10.00	--
SUB TOTALS									**Stream Length**	**132.00**	--

PCN Crossing Table
Wetlands and Waterbodies Affected by the
Dakota Access Pipeline Project in Iowa

PCN Review Area	Section, Township, Range	County	MP[a]	Latitude	Longitude	Waterbody Name	HDD[b]	Wetland/ Waterbody Feature ID	Feature Type[c]	Temporary Impacts (acres)/Stream Length Crossed (ft)	PFO Conversion (Acres)
HUC 07100004 - Middle Des Moines											
17	S15T85NR27W	Boone	642	42.1699	-93.9760	Tributary to the Des Moines River	No	S_BM-1_BO_6	Ephemeral	1.00	--
17A	S15T85NR27W	Boone	642	42.1699	-93.9810	Tributary to the Des Moines River	No	S_BM-1_BO_8	Intermittent	1.00	--
18	S14T85NR27W	Boone	642.5	42.1685	-93.9662	N/A	Yes	W_BM-1_BO_5	PFO	0.00	0.04
	S14T85NR27W	Boone	642.5	42.1687	-93.9661	Des Moines River	Yes	S_BM-1_BO_3	Perennial	0.00	--
19	S24T85NR27W	Boone	643.5	42.1657	-93.9466	Tributary to Mineral Branch	No	S_PI_BO_4	Intermittent	10.00	--
SUB TOTALS									**PFO**	**0.00**	**0.04**
									Stream Length	**12.00**	--
HUC 07080105 - South Skunk											
20	S34T83NR24W	Story	666.7	41.9559	-93.6318	Walnut Creek	No	S_BM-2_ST_2	Perennial	25.00	--
21	S18T82NR23W	Story	671.9	41.9073	-93.5629	Ballard Creek	No	S_BM-3_ST_1	Perennial	29.00	--
22	S20T82NR23W	Story	672.6	41.9018	-93.5531	Tributary to Ballard Creek	No	S_BM-2_ST_3	Intermittent	8.00	--
23	S4T80NR21W	Jasper	688.9	41.7696	-93.3068	Tributary to Indian Creek	No	S_PI_JA_3	Intermittent	10.00	--
24	S14T80NR21W	Jasper	692.1	41.7380	-93.2690	Tributary to Indian Creek	No	S_PI_JA_16	Intermittent	10.00	--
25	S14T80NR21W	Jasper	692.4	41.7368	-93.2633	Tributary to Indian Creek	No	S_PI_JA_5	Intermittent	10.00	--
26	S14T80NR21W	Jasper	692.9	41.7345	-93.2538	Tributary to Indian Creek	No	S_BM-5_JA_1	Intermittent	6.00	--
27	S28T80NR20W	Jasper	696.7	41.7115	-93.1914	N/A	No	W_BM-2_JA_2	PEM	1.97	--
28	S35T80NR20W	Jasper	698.9	41.6992	-93.1525	N/A	No	W_BM-8_JA_1	PEM	0.63	--
	S35T80NR20W	Jasper	698.9	41.6991	-93.1530	Tributary to Prairie Creek	No	S_BM-8_JA_5	Intermittent	4.00	--
29	S22T79NR19W	Jasper	706.5	41.6338	-93.0505	N/A	No	W_BM-3_JA_1	PFO	0.13	0.07
	S22T79NR19W	Jasper	706.6	41.6338	-93.0499	N/A	No	W_BM-3_JA_3	PFO	0.16	0.06
	S22T79NR19W	Jasper	706.6	41.6333	-93.0502	N/A	No	W_BM-3_JA_4	PFO	0.02	0.00
30	S27T79NR19W	Jasper	707.2	41.6263	-93.0453	Tributary to the South Skunk River	No	S_BM-2_JA_9	Intermittent	4.00	--
31	S20T76NR15W	Mahaska	736.4	41.3692	-92.6190	Tributary to the South Skunk River	No	S_BM-3_MA_4	Intermittent	1.00	--
32	S34T76NR15W	Mahaska	739.8	41.3368	-92.5729	N/A	No	W_BM-5_MA_7	PEM	1.50	--
	S34T76NR15W	Mahaska	740.2	41.3331	-92.5678	N/A	No	W_BM-2_MA_4	PEM	6.82	--
33	S2T75NR15W	Mahaska	740.9	41.3247	-92.5596	N/A	No	W_BM-2_MA_2	PEM	3.35	--
34	PCN has been withdrawn. An HDD avoids this area and hand-clearing will be implemented to avoid mechanized clearing of forested wetlands										

PCN Crossing Table
Wetlands and Waterbodies Affected by the
Dakota Access Pipeline Project in Iowa

PCN Review Area	Section, Township, Range	County	MP[a]	Latitude	Longitude	Waterbody Name	HDD[b]	Wetland/ Waterbody Feature ID	Feature Type[c]	Temporary Impacts (acres)/Stream Length Crossed (ft)	PFO Conversion (Acres)
35	S32T75NR14W	Mahaska	747	41.2559	-92.5010	Tributary to Snyder Creek	No	S_BM-2_MA_12	Intermittent	8.00	--
36	S12T74NR14W	Mahaska	751.7	41.2223	-92.4285	Tributary to Olive Branch	No	S_PI_MA_24	Intermittent	10.00	--
SUB TOTALS									**PEM**	**14.27**	--
									PFO	**0.31**	**0.13**
									Combined Wetlands	**14.58**	**0.13**
									Stream Length	**125.00**	--
HUC 07080107 - Skunk											
37	S34T73NR12W	Wapello	765.9	41.0890	-92.2355	Tributary to Wolf Creek	No	S_BM-2_WA_5	Intermittent	9.00	--
38	S34T73NR12W	Wapello	766.8	41.0807	-92.2227	Tributary to Cedar Creek	No	S_BM-2_WA_3	Intermittent	4.00	--
39	S2T72NR12W	Wapello	768.4	41.0649	-92.2002	Tributary to Cedar Creek	No	S_BM-2_WA_2	Intermittent	7.00	--
40	S18T72NR11W	Jefferson	770.3	41.0429	-92.1794	Tributary to Cedar Creek	No	S_BM-2_JE_8	Intermittent	2.00	--
41	S19T72NR11W	Jefferson	771.2	41.0312	-92.1741	N/A	No	W_BM-3_JE_1	PFO	0.41	0.22
	S19T72NR11W	Jefferson	771.3	41.0305	-92.1742	Tributary to Honey Creek	No	S_BM-3_JE_1	Perennial	13.50	--
42	S33T72NR11W	Jefferson	775.1	40.9920	-92.1318	Tributary to Rock Creek	No	S_BM-2_JE_1	Intermittent	6.00	--
43	S3T71NR11W	Jefferson	776.9	40.9774	-92.1035	Bonell Creek	No	S_BM-2_JE_4	Intermittent	10.00	--
44	S11T71NR11W	Jefferson	777.6	40.9718	-92.0927	Tributary to Bonell Creek	No	S_BM-2_JE_5	Intermittent	10.00	--
48	S9T70NR09W	Van Buren	789.5	40.8833	-91.9077	Tributary to Cedar Creek	No	S_BM-2_VA_3	Ephemeral	4.00	--
49	S9T70NR09W	Van Buren	789.6	40.8819	-91.9059	Tributary to Cedar Creek	No	S_BM-2_VA_4	Ephemeral	2.00	--
51	S30T70NR08W	Van Buren	795.2	40.8337	-91.8227	Tributary to Little Cedar Creek	No	S_BM-1_VA_1	Intermittent	4.00	--
52	S30T70NR08W	Van Buren	795.6	40.8310	-91.8170	Tributary to Little Cedar Creek	No	S_BM-7_VA_5	Intermittent	10.00	--
53	S3T69NR08W	Van Buren	799.2	40.8024	-91.7608	N/A	No	W_BM-7_VA_7	PFO	0.35	0.11
54	S11T69NR08W	Van Buren	800.1	40.7942	-91.7471	Tributary to Little Cedar Creek	No	S_BM-7_VA_16	Intermittent	30.00	--
SUB TOTALS									**PFO**	**0.76**	**0.33**
									Stream Length	**111.50**	--
HUC 07100009 - Lower Des Moines											
45	S19T71NR10W	Jefferson	780.8	40.9427	-92.0452	East Branch Lick Creek	No	S_BM-9_JE_2	Intermittent	3.00	--
46	S20T71NR10W	Jefferson	781	40.9412	-92.0423	N/A	No	W_PI_JE_3	PFO	0.36	0.22
	S20T71NR10W	Jefferson	781	40.9412	-92.0422	Tributary to East Branch Lick Creek	No	S_PI_JE_4	Intermittent	10.00	--

PCN Crossing Table
Wetlands and Waterbodies Affected by the
Dakota Access Pipeline Project in Iowa

PCN Review Area	Section, Township, Range	County	MP[a]	Latitude	Longitude	Waterbody Name	HDD[b]	Wetland/ Waterbody Feature ID	Feature Type[c]	Temporary Impacts (acres)/Stream Length Crossed (ft)	PFO Conversion (Acres)
47	S20T71NR10W	Jefferson	781.9	40.9343	-92.0281	N/A	No	W_BM-3_JE_6	PEM	0.03	--
	S20T71NR10W	Jefferson	781.9	40.9345	-92.0274	Tributary to East Branch Lick Creek	No	S_BM-3_JE_5	Intermittent	1.00	--
50	S23T70NR09W	Van Buren	793.1	40.8513	-91.8541	N/A	No	W_BM-7_VA_3	PFO	0.02	0.01
57	S6T66NR05W	Lee	823.8	40.5451	-91.4881	Tributary to Sugar Creek	No	S_BM-3_LE_4	Intermittent	4.00	--
58	S6T66NR05W	Lee	824.3	40.5405	-91.4828	N/A	No	W_BM-1_LE_5	PFO	0.03	0.02
	S6T66NR05W	Lee	824.3	40.5406	-91.4825	Tributary to Sugar Creek	No	S_BM-1_LE_3	Intermittent	10.00	--
59	S7T66NR05W	Lee	825.1	40.5317	-91.4724	Tributary to Sugar Creek	No	S_BM-1_LE_12	Intermittent	5.00	--
SUB TOTALS									**PEM**	**0.03**	--
									PFO	**0.41**	**0.25**
									Combined Wetlands	**0.44**	**0.25**
									Stream Length	**33.00**	--
HUC 07080104 - Flint-Henderson											
55	S10T67NR06W	Lee	817.6	40.6204	-91.5333	Tributary to Painter Creek	No	S_BM-5_LE_10	Intermittent	5.00	--
56	S10T67NR06W	Lee	817.9	40.6165	-91.5339	Tributary to Painter Creek	No	S_BM-5_LE_8	Ephemeral	4.00	--
60	S26T66NR05W	Lee	829.8	40.4879	-91.4087	N/A	Yes	W_PI_LE_4	PFO	0.00	0.17
61	S26T66NR05W	Lee	830.4	40.4850	-91.3975	N/A	No	W_BM-5_LE_8	PEM	0.01	--
	S26T66NR05W	Lee	830.4	40.4848	-91.3976	Tributary to Lamalees Creek	No	S_BM-5_LE_15	Intermittent	3.00	--
62	S25T66NR05W	Lee	831	40.4801	-91.3870	Tributary to Lamalees Creek	No	S_BM-2_LE_4	Intermittent	9.00	--
63	S36T66NR05W	Lee	831.3	40.4780	-91.3839	Tributary to Lamalees Creek	No	S_BM-2_LE_1	Ephemeral	4.00	--
SUB TOTALS									**PEM**	**0.01**	--
									PFO	**0.00**	**0.17**
									Combined Wetlands	**0.01**	**0.17**
									Stream Length	**25.00**	--
TOTAL									**PEM**	**14.42**	--
									PFO	**1.70**	**1.77**
									Combined Wetlands	**16.12**	**1.77**
									Stream Length	**445.50**	--

(a) MP = mile post.
(b) HDD = horizontal directional drill.
(c) PEM = Palustrine emergent wetland, PFO = Palustrine forested wetland.

Topeka Shiner Conservation Measures

Conservation measures to avoid and minimize impacts to the Topeka shiner have been developed through discussions with the Corps and USFWS in addition to findings from literatures review and field surveys of known and potential habitats impacted by Action Areas. Recommended Conservation Measures were also reviewed by Mr. David C. Frederick, of Frederick Environmental Consulting, LLC, to confirm the adequacy of these measures based on documented stream characteristics. Conservation Measures outlined below would be implemented to the extent practicable at each stream crossing that has been identified as potentially containing suitable habitat for the Topeka shiner in Iowa:

- As noted in Section 2.5, the preliminary routing analysis included consideration of critical habitats and avoided these locations through alignment selection.
- In Iowa, two streams, the North Raccoon River and Cedar Creek, would be crossed using HDD construction methods, thus, avoiding impacts to these streams and any potential habitat to the Topeka shiner at these crossing locations.
- All temporary storage facilities for petroleum products, other fuels, and chemicals shall be located and protected to prevent accidental spills from entering the stream or its tributaries within the Project area. In the event of an accidental spill, Dakota Access would follow established reporting procedures.
- Temporary stream crossings would not contain fine sediment particles that may enter the stream channel and impair water quality. In addition, temporary stream crossings should be removed immediately after final restoration, and the area of impact would be restored to pre-construction conditions.
- There would be no side casting of trench spoil material into waterbodies. Temporary stockpiles would be stored above the top-of-bank and properly protected with BMPs (e.g., silt fencing) to avoid and minimize erosion and sedimentation into the stream.
- Temporary culverts for equipment crossings would be installed in a manner that does not impede the natural stream flow or prevent the formation of fish barriers.
- Temporary BMPs would be utilized to minimize erosion and sedimentation into the waterbody. Appropriate temporary erosion control measures and/or temporary grass seeding should be in place within one week of land disturbance adjacent to each stream crossing. Additional site-specific BMPs would be implemented at each stream crossing as necessary to prevent sediment loading into the stream.

- In East Cedar Creek and West Buttrick Creek, turbidity curtains will be utilized during construction to prevent sediment from traveling downstream.
- In-stream construction would be expedited to the extent practical and typically be limited to 72 hours or less, with a goal to cross all in 24 to 48 hours.
- All areas denuded of vegetation as a result of the permitted action, including the pipeline right-of-way adjacent to each stream, shall be reseeded within one month following completion of construction in that area. U.S. Department of Agriculture, NRCS-approved native grasses, in addition to any other native "quick" rooting grasses, would be utilized as the permanent seeding mix in non-agricultural areas.
- Special attention would be taken to protect any off-channel wetland complexes, such as old oxbow meanders that are present near any of the stream crossings. Appropriate BMPs and construction practices as required under Nationwide Permit 12 and General Conditions would be followed for construction through each of these areas to protect these habitats. Following construction in each area, the right-of-way and each waterbody crossing would be restored to pre-construction contours and elevations.
- Dakota Access would inform all contractors of the construction practices and BMPs required to protect these sensitive habitats and complete installation of the pipeline in compliance with permit conditions.

DAKOTA ACCESS PIPELINE PROJECT

SUPPLEMENTAL INFORMATION TO THE BIOLOGICAL ASSESSMENT

Dakota Access, LLC
April 2016

Description:

Dakota Access, LLC (Dakota Access) plans to dewater East Cedar Creek to facilitate open cutting and installation of pipe as part of the Dakota Access Pipeline Project (DAPL). The total duration of dewatering and pipe installation will not exceed 36 hours.

Topeka Shiner Avoidance and Minimization Protocol:

1. A DAPL contractor will install an upstream work area barrier.
2. A blocking net will be placed downstream of work area to keep aquatic vertebrates from moving upstream into work area.
3. The contractor will then install a downstream work area barrier upstream of blocking net.
4. The entire work area will be seined a minimum of three times, using a 9.5 mm (.37 inch) stretched nylon mesh seine with a lead line bottom.
5. The dewatering pumps used to temporarily dewater the work area, will have the pumps' intake fitted with smaller mesh screens (9.5mm) or put in a slotted bucket to prevent aquatic life from entering the hose.
6. Once the dewatering has occurred, isolated pools will be dip-netted using non-abrasive 9.5mm netting. This should remove remaining fish.
7. Fish shall be handled with extreme care and kept in water at all times during the transfer procedures. A healthy environment for the stressed fish will be provided. The transfer of fish will be conducted using shaded or dark large buckets (five gallon minimum to prevent overcrowding) and minimal handling of fish. There will be no overcrowding in the buckets and holding time will be minimized. Large fish will be kept separated from smaller prey-sized fish to avoid predation during containment. The water temperature in the transfer buckets will not exceed the temperature of pool water in the subject stream. The fish will be retained the minimum time possible to ensure that stress is minimized, temperatures do not rise, and dissolved oxygen remains suitable. Supplemental oxygen (aeration) will be considered in designing fish handling operations.
8. The endangered Topeka Shiner will be handled with extreme care. The buckets the Topeka Shiner will be moved in will contain adequate amounts of well circulated water.
9. The fish will be released to a location upstream of the work activity. They will be released into an area that provides equivalent or better habitat than the location from which they were removed. The fish will be released downstream of the downstream work barrier only if this placement provides better protection and there is no other practical alternative.
10. Blocking net will be removed.
11. Downstream work area barrier will be removed.
12. Silt netting for bank stabilization will be maximized to the greatest extent practicable.
13. Upstream work area barrier will be removed.

Note: The contractor overseeing the fish removal operation will be permitted by the U.S. Fish and Wildlife Service for the handling of this endangered species.

Rock Island District Tribal Monitoring Plan for Dakota Access Pipeline (DAPL)

A. The objective of the tribal monitoring program is to develop a reasonable monitoring process while minimizing the potential for adverse effects from project activities to sites of religious and cultural significance. This plan provides guidelines to assist in the decision making process when consulting with the Tribes and to implement an effective communication system.

B. Verification of these Pre-Construction Notifications (PCN) for Nationwide Permit #12 are dependent on compliance with Section 106 regulations. Since the Tribe has specialized historical knowledge regarding their lands, cultural resources and materials, the applicant shall allow a tribal monitor to be present on-site for Iowa PCNs: 2, 3, 4, 5, 6, 17, 18, 19, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35 & 36.

1. The applicant shall notify the Upper Sioux Community Tribal Historic Preservation Officer (THPO), 7 calendar days in advance of expected excavations at each PCN referenced above. The applicant shall copy the Rock Island District on this correspondence.

2. Concurrent with and in coordination with the tribal monitoring, DAPL will provide archaeological monitors at these 21 PCNs as well. Both DAPL and the tribes are encouraged to work together to supplement and possibly staff the monitoring effort with tribal monitors to be present with DAPL monitors. Any tribal monitoring outside the formal DAPL archaeological monitoring will not be reimbursed by DAPL unless DAPL approves the monitors to be staffed as part of the monitoring team. If tribes desire to have additional monitors onsite during construction, they will be provided access. DAPL will notify each tribe that expresses interest in participating in monitoring of the construction schedule for each PCN listed above.

3. In response to the notification, the THPO shall provide the name and contact information for the tribal monitor that will be present, no later than 5 days before proposed construction dates. If a response is not received by the applicant, then the applicant shall notify the Rock Island District that construction at the site will proceed without a tribal monitor. The Rock Island District may choose to send a District Archaeologist to be present and will notify DAPL at that time. However, if a tribal monitor is present on the day of construction, even if no response was received by the applicant, then the monitor shall be allowed onsite for all permitted grubbing, trenching, grading or land disturbances; subject to conditions outlined below.

C. In general, tribal monitors are representatives of the Tribe and are present to monitor PCN areas during the ground disturbing activities related to construction. The areas to be monitored may have cultural significance and may have been identified as a result of Cultural Resource Surveys and Inventories, Tribal Cultural Property Studies, and the Section 106 Consultation process. The monitors should have adequate training and/or experience regarding local historic and prehistoric Native American village sites, culture, religion, ceremony and burial practices. However, tribal officials are ultimately responsible for vetting the qualifications of the tribal monitors whom

they choose to represent their Tribe. Tribal monitors must stay within the designated construction areas and not trespass off the construction right-of-way. There will be clear lines of communication among the tribal monitors, the DAPL archaeological monitor, the Rock Island District representatives, and the onsite DAPL Construction Manager and Environmental Inspector.

1. Tribal monitors will coordinate all initial efforts through the designated tribal liaison from DAPL. Onsite, the DAPL archaeological monitor will take the lead to inform the DAPL personnel in charge (the Construction Manager and the Environmental Inspector) of any discoveries. In the event of a discovery, the tribal monitor will work with the DAPL archaeological monitor to contact the onsite DAPL Construction Manager and Environmental Inspector who will contact a DAPL archaeologist or DAPL Project Manager (PM). At this time the protocols included in the Unanticipated Discoveries Plan (UDP) shall be implemented. In addition, the DAPL archaeologist or PM will contact the Rock Island District and the Iowa State Historic Preservation Officer (SHPO) to start the evaluation and mitigation process, if needed. If any problems arise that cannot be resolved, the Rock Island District representative shall be contacted to help resolve the issue.

2. Tribal monitors must abide by all OSHA safety rules and wear protective equipment at all times while on site. Assistance is to be provided by construction personnel, to facilitate access as required by OSHA regulations. This may include pumping water from excavations, shoring of trenches or other actions mandated by OSHA regulations for workers.

3. On any day where a tribal monitor will be present on-site, the monitor must be present at any applicable pre-work briefing for safety and hazard presentations and participate in DAPL safety training and wear protective equipment at all times while on site. All construction monitors, inclusive of DAPL staff and consultants, tribal monitors, and Rock Island District personnel will be required to adhere to DAPL's safety guidelines and must attend a safety meeting and be outfitted with proper personal protective equipment including steel toe boots, hard hat, safety vest and safety glasses. Each person is responsible for having their own personal protective equipment. Any person not having such equipment or not attending a safety meeting will not be allowed on the construction site. Construction will not be delayed, altered, or stopped in the event any person fails to attend a safety meeting or have proper personal protective equipment. In the event a monitor from the tribes, from DAPL or from the Rock Island District does not adhere to the safety program and is not allowed access or is removed, the Rock Island District will be notified within 24 hours.

D. On-site Monitoring Plan

1. During ground-disturbing activities the tribal monitor will provide assistance to the DAPL archaeological monitor, the DAPL Construction Manager and the DAPL Environmental Inspector with the identification of sites of religious and cultural significance to the Tribes. No access to areas

outside of the PCN boundary will be allowed.

2. It is the responsibility of DAPL to avoid disturbance to archaeological resources and human remains. The DAPL archaeological monitor will be responsible for actively observing and reporting any cultural artifact or human remains found either on the surface or subsurface within the PCN. The tribal monitor is responsible for assisting the DAPL archaeological monitor in identifying possible sites of religious and cultural significance and also will assist in observing and reporting any cultural artifact or human remains within the PCN and will then notify the DAPL archaeologist.

3. The combined authority of the tribal monitor in conjunction with the DAPL archaeological monitor to temporarily halt ground disturbance operations in the area of a discovery to allow evaluation of potentially significant cultural resources shall be clearly conveyed to all levels of the on-site excavation team, including the equipment operators. The tribal monitor, in conjunction with the DAPL archaeologist and the DAPL Environmental Inspector, shall determine if a discovery is significant enough to require further investigation. The time period allowed will be in direct proportion to the significance of the find. In any event or find, physical evidence of a find must be observed and documented.

4. If incidental or demonstrably non-NRHP (National Register for Historic Preservation) eligible cultural materials or features are discovered during construction, the tribal monitor working with the DAPL archaeological monitor will temporarily stop work at that location and notify the DAPL Environmental Inspector. The DAPL archaeological monitor in conjunction with the tribal monitor will note the material and its position and placement. Work may only be stopped long enough to determine if the find is significant. Non-NRHP materials may include – but are not limited to – isolated pre-contact or historic period artifacts, and cultural materials younger than 50 years old. A non-NRHP eligible artifact encountered will not be collected or analyzed unless it is diagnostic to a culture or time period or indicative of significant archaeological deposits. When the find is deemed to be not significant by the tribal monitor, the DAPL archaeological monitor and the DAPL Environmental Inspector, excavation will resume.

5. If potentially NRHP eligible cultural resources or human remains are discovered, the tribal monitor in coordination with the DAPL archeological monitor will immediately halt work at that location and notify the DAPL Environmental Inspector and the DAPL Construction Manager. The site will immediately be protected by the Environmental Inspector according to the UDP and notifications initiated according to the UDP. Work may resume outside the buffer around the discovery site. This buffer shall be at least 100' radius and of a size adequate to provide for the security, protection, and integrity of materials.

6. The tribal monitor, DAPL, and all DAPL contractors are required to adhere to the Unanticipated Discoveries Plan for Cultural Resources and Human Remains Iowa, and report to the Rock Island District if an archaeological or

cultural resource is discovered.

7. If significant cultural resources are encountered, the tribal monitor shall be given primary deference in method of handling artifacts and remains, in coordination with SHPO, the landowner and any other persons having jurisdiction over human remains (e.g. coroner or sheriff), unless such items are deemed by the DAPL archeological monitor and the tribal monitor to be not related to tribal occupation, tribal cultural resources or tribal burials. On private land, if the landowner wishes to take possession of the artifacts (excluding human remains and funerary objects), then all parties involved will adhere to the landowner's request. In the event of an inadvertent discovery of human remains, protocols listed in the UDP shall be followed.

E. Credentials and qualifications of the tribal monitors shall be within the purview of the individual Tribes. The individuals selected will be officially recognized by the Tribe as having the capabilities to perform the duties as described in the job description. It is anticipated that the Tribe will administer the activities of the monitors from a tribal perspective. Tribes can also contract out monitoring work to other Native American Tribes who have qualified staff provided that each Tribe officially delegates such authority in writing, stating that they endorse the candidate.

F. The Rock Island District and the Tribes have agreed through the consultation process upon the extent of and locations of tribal monitoring. Tribal monitoring will be conducted on PCNs identified by the Tribes as having significance to that Tribe, areas identified by Traditional Cultural Properties Inventories and Studies, and areas identified by Tribes during the Section 106 process. In the Rock Island District, the following Iowa PCNs shall have tribal monitors allowed onsite: 2, 3, 4, 5, 6, 17, 18, 19, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35 & 36

G. It will be the responsibility of the DAPL Construction Manager to contact, in person, or via email, text, or telephone, the tribal monitor(s) or Rock Island District Regulatory Chief and notify them of emergencies or potential emergencies affecting the PCN areas, such as inclement or violent weather.

H. Tribal monitors will be required to complete daily logs and submit weekly activity reports to the Rock Island District and tribes participating in monitoring for that site that describe the PCN areas monitored. In addition to describing the area(s) monitored, they will describe activities monitored and describe any issues or concerns that were encountered and how those were resolved. In addition, any reports completed by a qualified archaeologist shall be forwarded to the Rock Island District upon completion of the report. The weekly monitoring reports will be treated as confidential documents. The Tribe may elect to share information with other consulting Tribes.

I. The tribal monitor will not remove cultural or other material at any PCN. All material, whether deemed NHRP eligible or not shall not be removed except under procedures outlined in the UDP. Cultural material identified in a PCN area on private land is the property of the landowner except human remains and funerary objects. No-one, except police and coroner staff, is authorized to remove human remains or funerary objects at any PCN.